

No, Mermaids Do Not Exist

What Animal Planet's fake documentaries don't tell you about the ocean.

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No credible evidence of the existence of mermaids has ever been found

Courtesy of Animal Planet

This week, Animal Planet aired two fake documentaries claiming to show scientific evidence of mermaids. I say “fake documentaries” because that’s exactly what *The Body Found* and *The New Evidence* are. The “scientists” interviewed in the show are actors, and there’s a brief disclaimer during the end credits. However, the Twitter conversation surrounding the show (#Mermaids) reveals that many viewers are unaware that the show isn’t real. (Sample Tweets: “After watching the documentary #Mermaids the body found ... I believe there are mermaids!!!” and “90% of the ocean is unexplored and you’re telling me #mermaids don’t exist”—which has been retweeted more than 800 times.) It is, after all, airing on a network that claims to focus on educating viewers about the natural world. “The Body Found” was rightfully described “the rotting carcass of science television,” and I was shocked to see Animal Planet air a sequel.

As a marine biologist, I can tell you unequivocally that despite millennia of humans exploring the ocean, no credible evidence of the existence of mermaids has ever been found. Some claim that manatees are the source of the legend, but you’d have to be at sea an awfully long time to think that a manatee is a beautiful woman. Sure, new species are discovered all the time, but while a new species of bird or insect is fascinating, it doesn’t mean “anything is possible,” and it is certainly not equivalent to finding a group of talking, thinking humanoids with fish tails covering half of their bodies. The confusion generated by “The Body Found” got to be so significant that the United States government issued an official statement on the matter.

When I started angrily posting about this on Facebook and Twitter, many of my nonscientist friends asked me why it matters if people believe in mermaids. It matters because the ocean is extremely important. It provides jobs for tens of millions of people and food for billions. However, many marine resources are being overexploited and mismanaged, leaving us in serious danger of losing them forever. Policy solutions can help, but if you are so ignorant about what is really happening in the ocean that you believe that there are organisms that are half human and half fish, you’re almost certainly unaware of the important problems, much less how to solve them. Even if you don’t believe in mythical creatures, you may be unaware of the severity of the crises facing our oceans. Now that we’ve established that mermaids aren’t real, here are 5 other important things about the ocean that everyone should know.

1. The oceans are not inexhaustible, we're currently overharvesting many resources, and the consequences can be disastrous.

According to the United Nations Food and Agriculture Organization, 32 percent of all global fisheries are "[overexploited, depleted, or recovering](#)" and another 50 percent are fully exploited (as of 2010). Overfishing is the single greatest threat to the ocean environment, but this isn't just an environmental problem. Fish are a critically important natural resource, with more than 3 billion people getting at least 15 percent of their protein from the ocean. Although human population growth is still increasing, we won't be able to increase the amount of fish we're taking from the ocean."

2. Current fishing practices aren't just problematic for the fish species we are trying to catch.

Most commercial fisheries don't use a rod and reel, catching one fish at a time and throwing back what they don't want (or aren't allowed to sell). A single [longline](#) can be many miles long and have tens of thousands of baited hooks; purse seine nets can be [miles across](#); and the largest trawl net on the market can [fit several 747 airplanes](#) in its opening. Bycatch, which occurs when fishermen catch animals swimming near their target catch, is unavoidable with fishing gear this large, but the problem can be unexpectedly severe. In some fisheries, 90 percent of the catch by weight is bycatch, which includes endangered sea turtles and sea birds as well as marine mammals. Some types of fishing, such as dynamite fishing and cyanide fishing, can heavily damage the environment. Dragging a heavy trawl net over the seafloor destroys countless fragile and ecologically important organisms, the equivalent of hunting for rabbits by bulldozing a forest and killing all the deer, birds, insects, and plants that live there. The FAO estimates that 7 million tons of bycatch are caught and discarded every year.

3. Just because a fish is from "the ocean" doesn't mean you should release it in the nearest body of salt water.

Invasive species are non-native organisms released into a new region. In the case of invasive fish, they are often introduced by aquarium hobbyists who release a fish when it gets too big for its tank. Often, there are no predators in the new habitat capable of eating these newly introduced animals. Lionfish, native to the Indo-Pacific, are believed to have been introduced to the Atlantic coast of the United States by aquarium hobbyists in the last few decades. Lionfish have no native predators in the Atlantic, and non-native predators are often deterred by their venomous spines. A single female lionfish can release millions of eggs in a year, so it's no surprise that [lionfish are now found](#) throughout the Caribbean and as far north as New York, and they are outcompeting or eating native, economically important fishes such as snapper and grouper.

4. Sharks aren't a threat to you, they're important, and they're in trouble

The average American has only a 1 in 3,800,000 chance of being killed by a shark. You're more likely to be killed by a lawnmower or a vending machine, and more likely to be bitten by a stranger on the subway. Like all predators, sharks help keep the ocean in balance by eating the sick, the weak, and the dying. However, sharks are suffering from overfishing more than most marine species, with 1 in 6 species of shark, skate, or ray (and 1 in 3 species of open ocean shark) considered "[Threatened with Extinction](#)" by the IUCN Red List.

5. Although mermaids don't exist, the ocean is still full of wonder, and it needs your help!

What you do affects the ocean even if you live far away, and there's a lot that you can do to help. Purchase [sustainable seafood](#). Use reusable grocery bags instead of single-use plastic bags, which can choke sea turtles or sea birds. Support politicians who [support ocean conservation](#), or encourage your current elected officials to support the ocean. Most importantly, ask your friends and family to do the same.

If I've ruined your sense of wonder about the oceans, don't fret. The absence of mermaids certainly doesn't mean that the oceans are boring. As deep sea ecologist [Andrew David Thaler](#) said, "Look, the ocean is a vast, unexplored frontier. The deep sea is Earth's last great wilderness. When we do venture into the abyss, we find creatures more diverse and incredible than our relatively limited imaginations can conceive. Don't insult that wonder with something as utterly mundane as 'human with fish tail.' "

Several of my marine scientist colleagues and I subjected ourselves to three hours of fake mermaid documentaries, live-tweeting and correcting inaccuracies as we watched. [Click here to read a Storify](#) of this discussion.

An earlier version of this article [appeared on Southern Fried Science](#).

Correction, Sept. 3, 2013: This article originally stated that *nine of the 10 most-fished species have been exploited so heavily that they are at 10 percent or less of their historical populations. The data on fish populations are not extensive enough to substantiate this claim. (Return to the corrected sentence.)*